

REMARKS

This application has been carefully reviewed in light of the Office Action dated January 14, 2004. Claims 1, 3 to 16, 21 to 32 and 36 to 46 are pending in the application, with Claims 2, 17 to 20, and 33 to 35 having been cancelled and Claims 43 to 46 having been added. Claims 1, 3 to 13, 21, 22, 26 to 29, and 36 to 42 have been amended. Claims 1, 22, 28, 37, 38 and 39 are in independent form. Reconsideration and further examination are respectfully requested.

In the Office Action, Claims 1, 2, 18 to 21, 28 to 37, 39, 40 and 42 were rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. Specifically, the Office Action contended that the terms “radiographing condition” and “each item of the radiographing condition” are relative terms which render the rejected claims indefinite.

Claims 2, 17 to 20, and 33 to 35 have been cancelled without prejudice or disclaimer of the subject matter and without conceding the correctness of their rejection. The remaining claims have been amended to more clearly define the invention. Reconsideration and withdrawal of the rejection of the remaining claims are therefore respectfully requested.

Claims 1 to 3, 6, 7, 10, 11, 17 to 21, 37 and 40 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,614,873 (Taylor); Claims 22, 23, 25 to 30 and 32 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,501,827 (Takasawa); Claims 38, 39, 41 and 42 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,748,509 (Fewster); Claim 4 was rejected under 35 U.S.C. § 103(a) over Taylor in view of U.S. Patent No. 6,259,767 (Neumann); Claim 5 was rejected under 35 U.S.C. § 103(a) over Taylor in view of U.S. Patent No. 6,422,749 (Polkus); Claims 8 and 9 were rejected under

35 U.S.C. § 103(a) over Taylor in view of U.S. Patent No. 6,504,897 (Yonekawa); Claims 12 to 16 were rejected under 35 U.S.C. § 103(a) over Taylor in view of U.S. Patent No. 5,357,554 (Schneidermann); Claims 24 and 31 were rejected under 35 U.S.C. § 103(a) over Takasawa in view of U.S. Patent No. 6,644,851 (Kumagai); and Claims 33 to 36 were rejected under 35 U.S.C. § 103(a) over Takasawa in view of Taylor. Reconsideration and withdrawal of the rejection of the remaining claims are respectfully requested.

Independent Claim 1 as amended is directed to a radiographic apparatus which performs radiography using examination request information received from an external apparatus, wherein the examination request information includes at least information on a portion to be radiographed of a human body, a parameter set and priority information for a parameter. The radiographic apparatus includes an X-ray generation unit which generates X-rays, and a storage unit adapted to store default radiographing parameter sets for a plurality of portions to be radiographed of a human body. The radiographic apparatus also includes a condition determination unit adapted to determine a radiation condition of the X-ray generation unit on the basis of the parameter set in the received examination request information and one of the default radiographing parameter sets, stored in the storage unit, corresponding to the portion to be radiographed. In addition, the radiographic apparatus includes a control unit adapted to control the X-ray generation unit on the basis of the determined radiation condition, wherein if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in the default radiographing parameter set, the condition determination unit selects a value of the parameter on the basis of the priority information.

Independent Claim 37 as amended is directed to a radiographing method of performing radiography using examination request information received from an external apparatus, wherein the examination request information includes at least information on a portion to be radiographed of a human body, a parameter set, and priority information for a parameter. The method includes the steps of selecting one of default radiographing parameter sets for a plurality of portions to be radiographed of a human body from a storage unit, the selected default parameter set corresponding to the received portion to be radiographed, and determining a radiation condition of a X-ray generation unit which generates X-rays on the basis of the parameter set in the received examination request information and the selected default radiographing parameter set. The method also includes the step of controlling the X-ray generation unit on the basis of the determined radiation condition, wherein if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in the default radiographing parameter set, the condition determination unit selects a value of the parameter on the basis of the priority information.

Thus, among its many features, the invention of Claims 1 and 37 is seen to provide for at least the features of (i) determining a radiation condition of the X-ray generation unit on the basis of the parameter set in the received examination request information and one of the default radiographing parameter sets corresponding to the portion to be radiographed, and (ii) selecting a value of the parameter on the basis of the priority information, if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in

the default radiographing parameter set. The applied Taylor patent is not seen to disclose or suggest at least these features.

As understood by Applicant, Taylor teaches an interactive integrated medical radiographic system comprising a radiation source, an electronic detector, a central control device including a CPU and a user interface, a memory and a display device. The radiation source emits on command a radiation beam that is directed to pass through a target and impinge on the electronic radiation detector. The central control device communicates with both the memory, the radiation source, and the electronic detector, and is programmed to interact with an operator through the user interface and in response to input by the operator, and data stored in the memory, to initialize the detector, to set the radiation source for a desired exam, to retrieve from memory a sequence of steps representing actions by the operator required to perform said desired exam, and to sequentially guide the operator through said sequence of actions. See Taylor, Abstract; column 2, lines 28 to 59; and column 6, line 60 to column 7, line 35.

However, Taylor is not seen to disclose or suggest (i) determining a radiation condition of the X-ray generation unit on the basis of the parameter set in the received examination request information and one of the default radiographing parameter sets corresponding to the portion to be radiographed, or (ii) selecting a value of the parameter on the basis of the priority information, if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in the default radiographing parameter set.

Allowance of independent Claims 1 and 37 is therefore respectfully requested.

Independent Claim 22 as amended is directed to a control apparatus which is connectable to a plurality of types of radiographic apparatuses, each comprising an X-ray generation unit which generates X-rays and an X-ray sensor which converts the X-ray radiation image data, and outputs information to the radiographic apparatuses on the basis of examination request information received from an external apparatus. The control apparatus includes an apparatus selection unit which selects a radiographic apparatus from the plurality of types of radiographic apparatuses to be used on the basis of the received examination request information. The control apparatus also includes a communication unit adapted to send information that pertains to the examination request information to the selected radiographic apparatus.

A feature of the invention of this claim therefore lies in selecting a radiographic apparatus from the plurality of types of radiographic apparatuses to be used on the basis of the received examination request information, where each type of radiographic apparatus comprises an X-ray generation unit which generates X-rays. The applied Takasawa patent is not seen to disclose or suggest at least this feature.

As understood by Applicant, Takasawa teaches an X-ray photographic system (radiography system) including a standing position sensor unit 13, a recumbent position sensor unit 15, an X-ray generation apparatus 101, an operation and display section 102 of the X-ray generation apparatus, a control section 17 of an X-ray photographic apparatus, an operation and display 18 of the X-ray photographic apparatus, and an information processing apparatus 1. See Takasawa, column 6, lines 37 to 46; and Figure 1.

However, Takasawa is not seen to disclose or suggest that each type of radiographic apparatus comprises an X-ray generation unit which generates X-rays. Rather, the standing position sensor unit 13 and recumbent position sensor unit 15 of Takasawa share a common X-ray generation apparatus 101. As a consequence, Takasawa could not possibly describe selecting a radiographic apparatus from the plurality of types of radiographic apparatuses to be used on the basis of the received examination request information, where each type of radiographic apparatus comprises an X-ray generation unit which generates X-rays.

Allowance of independent Claim 22 is therefore respectfully requested.

Independent Claim 38 as amended is directed to a control method of controlling a plurality of radiographic apparatuses, each comprising an X-ray generation unit which generates X-rays and an X-ray sensor which converts the X-ray radiation to image data on the basis of examination request information received from an external apparatus. The method includes the steps of selecting a radiographic apparatus out of the plurality of radiographic apparatuses to be used on the basis of the received examination request information, and sending information that pertains to the examination request information to the selected radiographic apparatus.

A feature of the invention of this claim therefore lies in selecting a radiographic apparatus out of the plurality of radiographic apparatuses to be used on the basis of the received examination request information. The applied Fewster patent is not seen to disclose or suggest at least this feature.

As understood by Applicant, Fewster teaches a computer system for analyzing a material sample using radiation such as X-ray radiation. The computer system

requests a user to input information for identifying a desired parameter of the material sample. The computer system uses this information to identify the possible analytical procedures for determining that desired parameter. An analytical procedure or procedures selected by the user and/or computer system is then simulated by the computer system to produce a first simulation of radiation leaving the sample. The selected analytical procedure is simulated again after the computer system has varied the influence of the desired parameter to produce a second simulation. The computer system then compares the first and second simulations to determine where the difference between them is greatest so as to enable an experiment to be conducted in the area or areas most sensitive to the desired parameter. See Fewster, Abstract; column 1, lines 28 to 50. However, Fewster is not seen to disclose or suggest a plurality of radiographic apparatuses. As a consequence, Fewster could not possibly describe selecting a radiographic apparatus out of the plurality of radiographic apparatuses to be used on the basis of the received examination request information.

Allowance of independent Claim 38 is therefore respectfully requested.

Independent Claim 39 as amended is directed to a control method of controlling a plurality of radiographic apparatuses, each comprising an X-ray generation unit which generates X-rays and an X-ray sensor which converts the X-ray radiation to image data on the basis of examination request information received from an external apparatus, wherein the examination request information includes at least information on a portion to be radiographed of a human body, a parameter set, and priority information for a parameter. The method includes the steps of selecting one of default radiographing parameter sets for a plurality of portions to be radiographed of a human body from a

storage unit, the selected default parameter set corresponding to the received portion to be radiographed, and determining a radiation condition of the X-ray generation unit on the basis of the parameter set in the received examination request information and the selected default radiographing parameter set. The method also includes the step of sending the determined radiation condition to the radiographic apparatus, wherein if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in the default radiographing parameter set, the condition determination unit selects a value of the parameter on the basis of the priority information.

A feature of the invention of this claim therefore lies in selecting a value of the parameter on the basis of the priority information, if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in the default radiographing parameter set. The applied Fewster patent is not seen to disclose or suggest at least this feature.

As noted above, Fewster teaches a system for determining a better parameter by comparing first and second simulations, where each simulation is produced by the computer system. This is different than the invention of Claim 39, wherein a value of a parameter in a parameter set in the received examination request information is compared to a value of a corresponding parameter in a default radiographing parameter set. Therefore, Fewster is not seen to disclose or suggest selecting a value of the parameter on the basis of the priority information, if a value of a parameter in the parameter set in the received examination request information is different from a value of a corresponding parameter in the default radiographing parameter set.

Allowance of independent Claim 39 is therefore respectfully requested.

Accordingly, based on the foregoing amendments and remarks, independent Claims 1, 22, 28, 37, 38 and 39 are believed to be allowable over the applied references.

The other rejected claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define additional aspects of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance and such action is respectfully requested of the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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